

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.

Currently, claims 1, 4-25, 30, 32, 33 and 39-47 are pending in this application. Claim 47 has been withdrawn.

Claim Objections:

Claims 1, 14 and 46 were objected to because of various informalities. Claims 1 and 46 were amended in accordance with the Examiner's helpful suggestions. The term "...from accounting data" has been maintained in claim 14 since the amendment "the accounting data" proposed in the Office Action would not have had a proper antecedent basis. Applicant thus respectfully requests that the objections to claims 1, 14 and 46 be withdrawn.

Rejection Under 35 U.S.C. §112:

Claims 17 and 46 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicant has editorially revised these claims by changing "which" to --wherein--. Accordingly, Applicant respectfully requests that the rejection of claims 17 and 46 under 35 U.S.C. §112, second paragraph, be withdrawn.

Rejections Under 35 U.S.C. §102 and §103:

Claims 1-6 and 46 were rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Crosskey et al (U.S. '281, hereinafter "Crosskey"). Applicant respectfully traverses this rejection.

For a reference to anticipate a claim, each element must be found, either expressly or under principles of inherency, in the reference. Crosskey fails to disclose each element of the claimed invention. For example, Crosskey fails to disclose measuring usage of

network resources at each of a plurality of customer terminals, sampling usage of the network resources by a customer terminal by measuring a portion of the usage only by that terminal, and comparing this measured portion of the usage with the usage measured at the customer terminal or usage charge calculated from the usage measured at the customer terminal, as required by independent claim 1 and its dependents. Similar (but not necessarily identical) comments apply to independent claim 46 which further requires, *inter alia*, performing a sampling step to check the validity of a measurement of the amount of network resources used by a terminal.

One goal of the invention required by claims 1 and 46 is to try to minimize the amount of traffic flowing through a network which is purely for the purpose of measuring network usage by users so that they can be billed on the basis of their usage. The invention required by claims 1 and 46 resolves this technical problem by having at least some of this work being performed by each terminal. That is, terminals at the edge of the network take on the burden of monitoring network usage. This monitored network usage is used to enable the network operator to charge the users for their usage, instead of the network having to shoulder this particular burden. The downside of this solution is that the network may not trust all users to honestly and accurately report their own network usage. A user may interfere with the measurements taken at his/her own respective terminal in an attempt to defraud the network operator.

Exemplary embodiments of the present invention avoid this problem by having the network monitor a sample of actual network usage as a policing measure and checking that the sampled usage does indeed correspond to the usage and/or cost reported by the corresponding terminal. The network does not continuously monitor all the network usage by each individual terminal, but does occasionally spot check (i.e.,

sample) to ensure that users are reporting their usage honestly and correctly. This reduces the burden on the network. The amount that the burden is reduced depends on how much sampling is done. For example, if the network samples only 1% of all network traffic, its burden is reduced by 99% compared to a conventional case, while still allowing dishonest and/or freeloading users to be determined.

In contrast, Crosskey discloses a network monitoring all usage. In particular, OLSP proxy server 5, a device within the network, performs the monitoring. Since the network is monitoring all of the network usage, there is absolutely no point in performing any sampling since the network already has all of the information available to it in order to calculate usage charges and to apportion them between the different parties. Accordingly, there is no teaching or suggestion of performing any sampling. As explicitly noted in claim 1, sampling includes measuring a portion of the usage (as in claim 1) or only a part of the total use of network resources made by a terminal as recited in claim 46. Sampling is well understood by those skilled in the art to estimate the characteristics of a population of a whole by analyzing a small portion of that population.

Section 13 of the Office Action alleges that col. 2, lines 19-51 discloses “a) measuring at each of a plurality of customer terminals usage by the respective customer terminal of network resources (emphasis added).” Applicant respectfully disagrees with this allegation. Col. 2, lines 19-51 describes the background of Crosskey’s invention. This section explicitly states that the on-line service provider (OLSP) should charge the user based on his/her actual usage of network resources (see, e.g., col. 2, lines 39-42). However, this section is completely silent as to where measurement of these network resources should take place. This portion of Crosskey does not disclose measuring usage at a customer terminal.

As noted above, Crosskey fails to disclose sampling usage of network resources by a customer terminal by measuring a portion of the usage by that terminal. Col. 9, lines 1-16 (specifically identified by the Office Action) merely discloses how some pre-calculated network usage charges should be divided between various parties such as the OLSP, content provider and user. Col. 9, lines 1-16 does not disclose sampling network usage. Similarly, col. 3, lines 4-14 (also specifically identified by the Office Action) fails to disclose the claimed sampling, and instead describes other charging schemes conventionally used in telephone billing which may differ from the scheme of sharing a billed charge as later proposed by Crosskey. Indeed, col. 3, lines 4-14 of Crosskey states the following:

“While, in telephone billing, the concept of 800 and 900 numbers has been used to differentiate the billing parties, this is done based on connection time or flat fee. Although, for cable TV, the pay-per-view method is charged on a user session basis to the viewer, only a single party, the viewer, is responsible for the billing. Finally, while cellular phone systems are also user session-oriented with both the caller and the receiver sharing the bill, the billable parties do not change dynamically once a call session is initiated and the splitting of the bill follows a prespecified convention and is based on connection time.”

Col. 2, lines 8-51 (also specifically identified by the Office Action) also fails to disclose the claimed sampling. This portion of Crosskey merely discloses that the OLSP should charge the user based on his/her actual usage. However, there is no teaching or suggestion of the claimed sampling. In particular, there is no teaching or suggestion in col. 2, lines 8-51 of comparing the sampled usage with the usage of network resources measured by a customer terminal. Additionally, there is no teaching or suggestion of performing a sampling step to check the validity of a measurement performed by a terminal as required by independent claim 46.

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Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. §102 in view of Crosskey be withdrawn.

Claims 7-19 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Crosskey in view of Ruth and Mills. Claims 19-25, 30, 32, 33 and 39-45 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over the three-way combination of Crosskey, Ruth and Mills and further in view of Takeuchi. Since each of these claims depends directly or indirectly from claim 1, the comments made above with respect to claim 1 apply equally to these claims. Ruth and Mills and/or Takeuchi fails to remedy the above noted deficiencies of Crosskey. Applicant thus respectfully requests that the various rejections under 35 U.S.C. §103 be withdrawn.

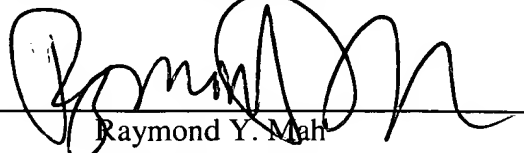
Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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By: _____


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